Claims

1. A catalyst for hydrocracking of heavy oils, comprising iron and active carbon having an MCH conversion rate of 40-80 %, a specific surface area of 600-1000 m^2/g of, a pore volume of 0.5 to 1.4 cm^3/g, 2-50 nanometers' mesopore volume of not less than 60% and the average pore diameter of 3-6 nanometers, the iron being carried on the active carbon in an amount of 1 to 20 wt.% to the active carbon.

2. A method of hydrocracking heavy oils by using the catalyst of claim 1, comprising two steps of conducting hydrocracking at a temperature within the range of 360-450 °C at a hydrogen partial pressure of 2-14 MPaG and conducting hydrocracking at a temperature within the range of 400-480 °C at a hydrogen partial pressure of 2-18 MPaG.

3. The method of claim 2, wherein, in the first and second steps, the concentration of the catalyst is 6-40 wt.% to the oils.

4. Use of the catalyst as defined in Claim 1 to hydrocracking of heavy oils.